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Kentucky Economic Review

by Charles W. Hultman*

Although the economic recovery and growth that characterized the nation during 1983 was relatively pervasive, recovery in the Kentucky economy was less extensive and was not reflected in all of the standard indicators. At the national level, the labor force unemployment rate decreased slightly from 9.7 percent in 1982 to 9.6 percent in 1983; in Kentucky, the unemployment rate actually increased from 10.6 percent in 1982 to 11.7 percent in 1983. However, revisions made recently by the Kentucky Cabinet for Human Resources show that during 1983 Kentucky's unemployment rate (both seasonally adjusted and unadjusted) declined during the second half of the year.

Other indicators suggest improvement occurred in the Kentucky economy during 1983. Total receipts (tax and non-tax) for the state government's General Fund increased about 6.7 percent from the fourth quarter of 1982 to the fourth quarter of 1983, compared to only a 1 percent increase in the similar 1981 to 1982 period. Nonetheless, at the end of the first half of the fiscal year, growth in the General Fund, at an overall rate of 4.5 percent, was below the Revenue Department's forecasted growth rate of 5.7 percent for the General Fund for the year. Employment, average weekly hours, and average weekly earnings in manufacturing, especially among production workers in durable manufacturing industries, increased over the same time period. The value of construction contracts (total residential and non-residential) also rose sharply during the year.

The slow recovery in Kentucky in 1983 stemmed in part from the weakness in the coal market, which in turn caused a fairly sharp decline in mining employment, income, and coal severance tax payments. In addition, the Kentucky agricultural sector was adversely affected by the summer drought and by the appreciated value of the dollar in foreign exchange markets and consequent reduced agricultural sales in world markets. Production of tobacco, Kentucky's major crop and its major agricultural export commodity, was down 87 percent over 1982; soybeans were down 52 percent—and corn production fell 71 percent. Some of this decline was deliberate and related to the federal government's acreage reduction programs, but the remainder can be attributed to the drought. The full economic impact is yet to be determined.

Some signs, although not all, point to continued expansion at the national level. The U.S. Composite Index of 12 Leading Indicators continued to rise through February—the latest month for which data are available—and February's seasonally adjusted unemployment rate declined slightly. The Commerce Department's initial estimate of the growth in real Gross National Product (GNP) for the first quarter of 1984 also reflected significant strength in the economy. The estimate indicated an annual rate of 7.2 percent, which follows a 5 percent increase for the fourth quarter of 1983. In addition, the Consumer Price Index rose at an annual rate of 4.6 percent in February—well within an acceptable range as compared with the double-digit figures of 1981 and 1982.

The two major concerns are the $185 billion deficit proposed by the Reagan administration for fiscal year 1984-85 and the upward shift in the prime rate—from 11 percent in February to 12 percent in April. Given these developments in an election year, it can be expected that economic recovery will be slowed but not stopped during the months ahead.

One partially favorable development for the nation's economy since the early part of 1984 has been the declining international value of the U.S. dollar. This change reduces the price of U.S. exports in terms of foreign currencies and thus contributes to a greater volume of exports. Although the depreciation of the dollar has a beneficial impact on U.S. employment, it also raises the price of U.S. imports and adds to inflationary pressures within the domestic economy.

In its April 1984 economic forecast, Data Resources, Inc. (DRI), projects real GNP to increase about 5.7 percent in

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**Charles W. Hultman is Professor of Economics, University of Kentucky and past Chairman of the Kentucky Council of Economic Advisors.*

News & Notes

The Secretary of the Commerce Cabinet serves *ex-officio* as a member of the Kentucky Council of Economic Advisors (KCEA). We therefore would like to welcome Carroll F. Knicely to the KCEA; he replaces W. Bruce Lunsford.

A long-time resident of Kentucky, Secretary Knicely has been involved in Kentucky journalism, economic development, banking, and civic affairs. He was editor and publisher of the *Glasgow Daily Times* for 19 years, and retains ownership in a publishing company. He also served as Commissioner of the Kentucky Department of Commerce in 1979. Currently Mr. Knicely is also a director of Citizens Bank & Trust Co. of Glasgow, and is active in several service organizations.

Professor Richard A. Dolin, Department of Business Administration, Bellarmine College, Louisville, was named recently to the KCEA by Governor Martha Layne Collins. He replaces H. Clyde Reeves of Frankfort, whose term had expired. Professor Dolin has been teaching at Bellarmine since 1980; prior to that he had been in private law practice in Louisville since 1973. He received his bachelor's degree from Ohio State University, an MBA from Bellarmine, and his law degree from the University of Louisville. Professor Dolin's primary academic interest is in general and financial management of small and medium-sized businesses. He works as a consultant for a number of profit and nonprofit organizations and sits on the boards of a variety of organizations.

In noting Clyde Reeves' "retirement" from the KCEA, we also wish to express our gratitude for the support he extended to the work of the KCEA staff. He served on the KCEA since 1978, following a life-time service to Kentucky and to higher education. His perspectives on economic analysis were always appreciated, as was his understanding of the value of centralizing and systematically maintaining and disseminating statistics on the Kentucky economy.

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The College of Business and Economics, University of Kentucky, announces a general reorganization of its research activities with the creation of the Center for Business and Economic Research. This new center incorporates the staff and responsibilities of the former Center for Applied Economic Research and the Office for Research and will coordinate all extramurally funded research for the College. With a broad mission to develop the College's full potential for funded research, the Center staff will work closely with College faculty and staff in accounting, economics, finance, management, and marketing.

The expanded responsibilities of the new Center reflect recent changes in the College's academic and administrative structure. The change is intended to allow the College more effective utilization of the resources available for meeting its research mission. The resource base for operation of this Center will include, among other resources, the state appropriation to the College for the research required under KRS Chapter 147B—Council of Economic Advisors. For the 1984-86 biennium, this appropriation will permit the Center to continue maintenance of the Kentucky Economic Information System (KEIS) and to prepare an annual report for transmittal to the Kentucky Council of Economic Advisors.

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This publication provides current information concerning the Kentucky economy. It is a forum for the publication of short expository articles, analyses of some aspect of the Kentucky economy, forecasts of the Kentucky economy, and tables of selected data chosen as indicators of developments in the Kentucky and national economies. The publication also sometimes includes information about enhancements to the Kentucky Economic Information System (KEIS) and articles dealing with information systems in general.

Articles submitted for publication should be sent to the Editor at the address given above. All submissions will be reviewed independently by persons recognized as knowledgeable in the specific subject discussed. However, the ultimate responsibility for content rests with the author.

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Kentucky's Public Infrastructure Needs: A Preliminary Assessment

by Phillip W. Roeder and Dennis B. Murphy*

Considerable attention has focused, over the past year, on the condition of our nation's public infrastructure. The existing infrastructure has been found to be inadequate to meet the needs of a growing society. These inadequacies result from the combined effects of deteriorating facilities, due to age and/or lack of maintenance, and pressures exerted by the demands of changing technologies. Generally, this condition has been worsened by the revenue implications of the longest and deepest economic recession since the 1930s and high rates of interest which have made it increasingly difficult for state governments to maintain an acceptable public infrastructure system. Furthermore, the Federal government's commitment to finance infrastructure maintenance, repair, and expansion appears to be declining. As a result, the states have been placed in the difficult position of attempting to maintain an adequate infrastructure to meet society's needs without having the necessary resource base to do so. Consequently, all levels of government must analyze their present and future infrastructure actions carefully so that effective decisions can be made for the present and future financing of public infrastructure needs.

A clear, concise definition of what is meant by the term "public infrastructure" is needed in order to be able to deal with revelant public/private sector and intergovernmental issues. In practice, the terms "infrastructure," "public works," and "public capital investment" have been used interchangeably. However, the terms often refer to different public sector investment efforts. Public works refers to works constructed by the government for the public's use or service. Public capital investment is a somewhat more inclusive term than public works and typically refers to the tangible, long-term investment made by government for physical structures. However, the most inclusive term and the one used in this article is infrastructure, defined as the basic installations and facilities on which the life and economic growth of a community or state depend.

To further define the term as it pertains to intergovernmental relationships and responsibilities, infrastructure can be broken down into three categories:

Basic and Traditional Infrastructure: highways, public transit, airports, municipal water supply, wastewater treatment, and other investments in basic public service facilities.

Human Services Infrastructure: state and local government programs to meet human service needs, and for educational, humanities, or correctional programs and facilities.

Development Infrastructure: this newest category to emerge over the past several years involves direct state and/or local government investment in specific economic development and revitalization projects such as civic centers, parking garages, hotels, and other joint public/private ventures. Such infrastructure projects have emerged as a major public sector activity and have as their ultimate goal, the enhancing of the general economic welfare by making substantial public commitments to economic development, financed by state and local bonded indebtedness.

The importance of infrastructure in Kentucky is considerable. The Commonwealth's agricultural and coal mining economy requires a modern and efficient transportation system. In addition, the projected growth of Kentucky's population in the predominately rural areas of the state will require a sizable investment in drinking water and wastewater treatment facilities to meet acceptable quality standards. Precise relationships between infrastructure condition, economic development, and industrial locational decisions have not been fully established. However, since the initial size and distribution of infrastructure investment is influenced significantly by the existing distribution of population and economic activity, there appears to be a strong relationship between them and new private investment and locational decisions. This theory is supported by a Bureau of the Census survey conducted in the mid-1970s for the Economic Development Administration that examined over 2,000 firms, representing 254 product classes.[1] A majority of the respondents stated that the availability of adequate basic infrastructure facilities was either of critical or significant importance when making locational decisions and more influential than were local tax or industrial revenue bond financing incentives.

The need for continuing investment in basic infrastructure is substantial both for Kentucky and the nation. Traditionally, basic infrastructure has been funded by all three levels of government—federal, state, and local. The Congressional Budget Office recently estimated the annual capital needs for all states' traditional infrastructure programs for the years 1983-1990.[2] Under current federal

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policy, they amount to over $53 billion in 1982 dollars. This includes $27.2 billion annually for highways, $6.6 billion annually for wastewater treatment facilities, and $7.7 billion annually for drinking water supply.

The second category of infrastructure is also very important to Kentucky. The Commonwealth is presently under a federal court order to reduce the population in its existing correctional facilities. Millions of dollars will be needed over the next few years to finance the capital investment needs of the state corrections system. The state's mental hospitals are old and in need of replacement; to try and meet this need the 1982 Kentucky General Assembly authorized the sale of $20 million in bonds to construct one new mental health facility and renovate another. Construction of public schools is primarily a local district responsibility in Kentucky; the current need for classroom facilities is estimated to be $340 million.[3]

Economic Development financing has become a major thrust of Kentucky's infrastructure investment effort in recent years. In 1982, the legislature authorized the issuance of $100 million in bonds designed to assist the private sector in developing a strong, diversified economic development program. This program emphasizes the construction of industrial parks and the development of riverport, downtown and recreational facilities. Obviously, Kentucky is not the only state funding major economic development infrastructure activities. Many states and localities are emerging as the primary financiers of not only economic development, but also human resources infrastructure projects. While these are state programs and theoretically should be state funded, the needs and responsibilities often far exceed the capacity of these governments to finance the projects.

Unlike the federal government, virtually all states are required to end their fiscal year without deficits, a requirement that is becoming increasingly difficult for most states to accomplish. Although the consensus among economic forecasters is that the national economy is growing, most states have yet to experience a strong economic recovery. Fiscal year 1983 (FY 1983) saw more states implementing budget reduction strategies than fiscal year 1982 (FY 1982).[4] Twenty-seven states took across-the-board cuts in FY 1983, up from seventeen in FY 1982; twelve additional states implemented selective program cuts; twenty-seven states enacted permanent tax increases; and twenty-four states adopted temporary revenue enhancement measures. These steps, whether permanent or temporary, were not undertaken to finance new or expanded programs but were necessary to maintain the existing revenue base. Since 1980, Kentucky has experienced revenue shortfalls of $1 billion, in addition to $900 million in federal funds lost over the same time period.[5]

The aggregate surplus of revenues for state governments has been reported as $4.7 billion in fiscal year 1981 (FY 1981), $2.3 billion in FY 1982, and $0.5 billion in FY 1983. The 1983 surplus represents 0.2 percent of current expenditures. In FY 1981, state taxes made up 48 percent of state income while non-tax revenue, including federal grants, totalled 25.3 percent. By 1985, states' non-tax revenues are projected to decline to 16.4 percent.[6] In addition to the reduction in federal grants to the states, provisions of the Economic Recovery Tax Act (ERTA) of 1981 will affect state revenues negatively. The National Governors' Association estimates that the accelerated cost recovery provisions contained in ERTA will result in $2 billion in revenue lost to the states from corporate taxes.[7] Kentucky estimates ERTA will cost state government $65 million per year.[8]

Considering the present fiscal condition of the states, projections of limited real growth in state revenues over the next several years, and the reduction of federal grants to states, states must look elsewhere for financial support for their basic public infrastructure system needs. This is especially critical because states are also almost totally responsible for funding the other major categories of infrastructure, i.e., human services infrastructure, and economic development infrastructure.

The federal government is reducing financial assistance to the states for federally-mandated programs in the health and welfare area, at the same time as it is reducing its support for the basic public infrastructure system. After significant increases in the 1970s, the proportion of total spending on infrastructure activities by the federal government declined between 1980 and 1982. Thus, the share of the burden borne by state and local governments has increased relatively. More importantly, the decline in federal support, as estimated by the Congressional Budget Office (CBO), will continue. The CBO reports FY 1983 annual capital spending for the basic, traditional infrastructure system was about $53.4 billion. The federal share of this total was approximately $28.2 billion, or 52.8 percent; this represents a decline from a 54.6 percent share in FY 1982.

It is obvious that finding the financial resources to support infrastructure investment and maintenance is a problem of national scope. Government expenditures on infrastructure as a proportion of overall budget has declined at all levels of government from 2.2 percent of Gross National Product (GNP) in 1960 to 1.3 percent of GNP in 1980.[9] State and local capital investment as a percentage of total budget outlays declined from approximately 25 percent in 1960 to 14 percent in 1980.[10] Faced with revenue constraints and increased demands for services, many state and local governments have chosen to balance their budgets by deferring or eliminating capital investment and maintenance. When combined with similar reductions by the federal government, it is apparent that the necessary financial commitment to the nation's infrastructure system may no longer be present.

In order to address the complex problems of our nation's infrastructure, to gather reliable data on the extent of infrastructure needs, and to propose policies and programs that confront these issues, the Joint Economic Committee of the Congress requested a national study; Kentucky was one of 23 states to participate.[11] The Kentucky study was designed to estimate the future infrastructure investment needs of the Commonwealth and to assist the Joint Economic Committee of Congress in their task of identifying the future infrastructure needs of the nation.

Collection of data for the Kentucky study was limited to *basic infrastructure needs*: highways and bridges, local streets and roads, mass transit, airports, railroads, water supply, wastewater treatment, and water resources. Human service and development infrastructure were not included. Past and future spending levels for these facilities were sought from federal, state, and local levels of government. Varying degrees of success were experienced in obtaining the data, depending upon the internal data collection and planning efforts by the relevant agencies. In reviewing the study results, it should be noted that progress only recently has been made to develop planning and budget documents to detail future infrastructure needs. In the past, the missions of most state and federal agencies did not call for extensive recordkeeping or planning. Therefore, the results of the analysis of some basic infrastructure categories are incomplete; others have a planning horizon that is shorter than desired for capital planning purposes.

A summary of the study findings is presented in Table 1. Briefly, the investment need for highways and bridges through fiscal year 1989 (FY 1989) is estimated to be $7,945 million (in 1982 dollars). This figure is derived from a maintenance cost figure estimated by the University of Kentucky's Transportation Research Program.[12] A linear extrapolation to fiscal year 2000 (FY 2000) shows investment needs for highways and bridges to be $20,430 million (in 1982 dollars). By employing a population growth factor based upon population projections from the Urban Studies Center, University of Louisville, water supply treatment and distribution needs are estimated to be $672 million (in 1982 dollars) through FY 1989, with a total need of $1,428 million (in 1982 dollars) through FY 2000. Wastewater treatment needs, as determined by the U.S. Environmental Protection Agency, are $858.5 million (in 1982 dollars) through FY 1989, and $3,080 million (in 1982 dollars) for FY 2000. These estimates include backlog needs. Water resources infrastructure needs are estimated for FY 1989 at $11 million for state-owned dam repair, $49 million for local flood control, and $66 million for riverport development, all in 1982 dollars. Estimates to the year 2000 were impossible to make due to data constraints.

In total, an estimated $9,716 million (in 1982 dollars) in FY 1989 needs were identified, while an estimated $25,231 million (in 1982 dollars) were identified through FY 2000. In addition, since the investment needs for human service and development infrastructure are not included in this study, an underestimate of the total investment need for all infrastructure categories in Kentucky occurs. The addition of these two categories would increase the investment need substantially; however, until further capital planning is done in Kentucky, the total impact of these two infrastructure categories is unknown.

TABLE 1

KENTUCKY'S BASIC INFRASTRUCTURE NEEDS
(MILLIONS OF 1982 DOLLARS)

		FY 1989 Needs	FY 2000 Needs
I.	Transportation		
	A. Highways and Bridges	7,945	20,430
	B. Local Streets and Roads	NA	NA
	C. Mass Transit	52	134
	D. Airports	55	141
	E. Railroads	7	118
II.	Water Supply, Treatment and Distribution	672	1,428
III.	Wastewater Treatment	859	3,080
IV.	Water Resources		
	A. Dams	11	NA
	B. Flood Control	49	NA
	C. Riverports	66	NA

In total, an estimated $9,716 million (in 1982 dollars) in needs were identified for FY 1989, while an estimated $25,231 million (in 1982 dollars) were identified for FY 2000.

Source: Phillip W. Roeder and Dennis B. Murphy, *Kentucky's Public Infrastructure Needs: Capital Investment Planning and Budgeting*, Bureau of Policy Research, Martin Center for Public Administration, University of Kentucky, October 1983.

TABLE 2

NEEDS, RESOURCES AND PROJECTED SHORTFALLS: U.S. INFRASTRUCTURE 1983-2000 (BILLIONS OF 1982 DOLLARS)

	Needs	Resources	Shortfalls
Highways and Bridges	$720	$455	$265
Other Transportation	178	90	88
Water Supply and Distribution	96	55	41
Wastewater Collection and Treatment	163	114	49
Totals	$1,157	$714	$443

Source: *Hard Choices*, a summary report of the National Infrastructure Study, prepared for the Joint Economic Committee of the United States Congress, February 1984.

The considerable need for investment in Kentucky's infrastructure can also be placed in the context of national needs. The conclusions of the summary report of the National Infrastructure Study are that the problem is national in scope, the problem is manageable, and the problem requires that state and local governments continue to assume primary responsibilities in the area, but that there also must be a long-term response and commitment by the federal government.[13] The estimated national infrastructure needs and resources are shown in Table 2. As can be seen, resources of $714 billion (in 1982 dollars) are projected to fall $443 billion (in 1982 dollars) short of need for the period 1983-2000. Kentucky's portion of that shortfall is estimated to be $13 billion, while Indiana's portion is estimated to be $28 billion.

(Continued on page 11)

selected indicators OF ECONOMIC A

These tables of selected indicators of economic activity were prepared by a special-purpose program of the Kentucky Economic Information System. The data in the tables are reported figures which were obtained from a variety of state and federal agencies, as well as from private firms.

UNITED STATES DATA

	Oct. 1983	Nov. 1983	Dec. 1983	Qtr. IV 1983	% Chg. 83-III 83-IV	% Chg. 82-IV 83-IV
CONSUMER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED)						
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, ALL ITEMS (NEW DEF)	302.60	303.10	303.50	303.07	0.87	NA
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, FOOD AND BEVERAGES	285.70	285.30	286.50	285.83	0.30	2.35
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, HOUSING (INCL RENTAL EQUIV)	326.80	327.00	327.40	327.07	0.56	NA
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, APPAREL AND UPKEEP	200.70	200.70	199.30	200.23	1.35	2.77
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, TRANSPORTATION	305.00	306.30	306.30	305.87	1.22	3.55
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, MEDICAL	362.90	364.90	366.20	364.67	1.40	6.71
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, ENTERTAINMENT	249.10	249.50	249.50	249.37	1.08	3.86
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, OTHER	296.80	298.10	298.60	297.83	2.59	8.75
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, SPECIAL INDEX: ENERGY	425.10	419.90	418.00	421.00	-2.03	-0.36
PRODUCER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED)						
PRODUCER PRICE INDEX, ALL COMMODITIES	306.00	305.60	306.00	305.87	0.48	1.87
PRODUCER PRICE INDEX, ALL FINISHED GOODS	287.60	286.80	287.10	287.17	0.54	0.82
PRODUCER PRICE INDEX, FINISHED CONSUMER GOODS	287.00	285.80	287.10	286.63	0.46	0.55
PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS	315.60	315.70	315.80	315.70	0.51	1.85
PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS FOR MANUFACTURING	296.40	296.10	297.00	296.50	0.45	2.67
PRODUCER PRICE INDEX, CRUDE MATERIALS	324.80	324.10	327.80	325.57	0.05	4.14
PRODUCER PRICE INDEX, CRUDE FOODSTUFFS AND FEEDSTUFFS	253.70	252.00	256.20	253.97	-0.01	7.36
PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, SPOT(1967=100)	437.00	444.20	446.10	442.43	-0.01	1.96
PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, CONTRACT(JUNE76=100)	151.20	151.40	152.30	151.63	0.95	0.07
PRODUCER PRICE INDEX, ALL CONSTRUCTION MATERIALS	311.60	300.60	301.40	304.53	0.36	5.78
CONSUMER PRICES: ENERGY (U.S. CITY AVERAGE)						
AVG PRICE FOR UTILITY (PIPED) GAS, PER 40 THERMS	27.03	27.19	27.33	27.19	-0.37	7.70
AVG PRICE FOR UTILITY (PIPED) GAS, PER 100 THERMS	64.06	62.39	62.54	63.00	-2.47	7.07
AVG PRICE FOR ELECTRICITY, PER 500 KWH	38.78	38.32	38.19	38.43	-2.85	3.76
AVG PRICE FOR FUEL OIL #2 (HOME HEATING OIL), PER GALLON	1.09	1.09	1.08	1.09	0.22	-11.41
AVG PRICE, GASOLINE, ALL TYPES, PER GALLON	1.24	1.22	1.21	1.23	-3.16	-3.01
AVG PRICE, GASOLINE, LEADED REGULAR, PER GALLON	1.17	1.16	1.15	1.16	-3.47	-3.69
AVG PRICE, GASOLINE, UNLEADED REGULAR, PER GALLON	1.25	1.24	1.23	1.24	-3.12	-2.89
AVG PRICE, GASOLINE, LEADED PREMIUM, PER GALLON	1.37	1.36	1.38	1.37	-4.17	-2.07
LABOR FORCE (SEASONALLY ADJUSTED, MILLIONS OF PERSONS)						
LABOR FORCE, TOTAL (INCL RES ARMED FORCES)	113.51	113.72	113.82	113.68	-0.14	0.47
LABOR FORCE, CIVILIAN (EXCL RES ARMED FORCES)	111.87	112.03	112.14	112.01	-0.04	1.07
EMPLOYMENT, RESIDENT ARMED FORCES	1.69	1.68	1.69	1.69	0.54	1.50
EMPLOYMENT, TOTAL CIVILIAN	101.97	102.61	102.94	102.51	0.96	3.49
EMPLOYMENT, AGRICULTURE	3.24	3.26	3.36	3.28	-3.93	-4.99
EMPLOYMENT, NONAGRICULTURAL	98.73	99.35	99.58	99.22	1.13	3.67
UNEMPLOYED, CIVILIAN, TOTAL	9.90	9.43	9.19	9.51	-9.71	-19.26
UNEMPLOYMENT RATE, TOTAL LABOR FORCE	8.70	8.30	8.10	8.36	-9.58	-19.64
UNEMPLOYMENT RATE, CIVILIAN LABOR FORCE	8.80	8.40	8.20	8.49	-9.67	-20.12
OTHER SELECTED NATIONAL INDICATORS:						
U.S. GROSS NATIONAL PRODUCT (B $) (% CHG, ANNUAL RATE)	NA	NA	NA	3436.20	9.10	10.50
U.S. REAL GROSS NATIONAL PRODUCT (B 72$) (% CHG, ANNUAL RATE)	NA	NA	NA	1572.50	5.01	6.20
PERSONAL INCOME, TOTAL, SEASONALLY ADJUSTED (B $)(% CHG, ANNUAL RATE)	2812.50	2833.50	2859.60	2835.20	11.05	7.72
COMPOSITE INDEX OF 12 LEADING INDICATORS (1967=100)	162.20	161.90	162.90	162.80	2.22	16.59
INDEX OF INDUSTRIAL PRODUCTION, SEASONALLY ADJUSTED (1967=100)	155.00	155.50	156.40	155.63	2.55	15.06
AVERAGE PRIME RATE CHARGED BY BANKS ON SHORT-TERM BUSINESS LOANS	11.00	11.00	11.00	11.00	1.88	-8.00
INTEREST RATE, YIELD ON 3-MONTH TREASURY BILLS	8.64	8.76	9.00	8.80	-4.21	10.92
PRIVATE HOUSING UNITS AUTH, 16000 PERMIT-ISSUING PLACES (SADJ THOU)	1630.00	1642.00	1549.00	1607.00	9.37	30.05
TOTAL INSTALLMENT CREDIT OUTSTANDING AT END OF MONTH (B $)	371.56	376.39	387.93	387.93	5.53	12.71

ACTIVITY

KENTUCKY DATA

	Oct. 1983	Nov. 1983	Dec. 1983	Qtr. IV 1983	% Chg. 83-III 83-IV	% Chg. 82-IV 83-IV
LABOR FORCE (NOT SEASONALLY ADJUSTED, THOUSANDS)						
LABOR FORCE, TOTAL CIVILIAN	1708.35	1694.19	1683.08	1695.21	-0.08	-1.49
EMPLOYMENT, TOTAL, BY PLACE OF RESIDENCE	1544.96	1535.64	1530.07	1536.89	1.57	0.97
EMPLOYMENT, AGRICULTURAL	86.10	70.60	55.00	70.57	-9.45	-2.26
EMPLOYMENT, TOTAL NON-AGRICULTURAL	1458.86	1465.04	1475.07	1466.32	2.17	1.13
UNEMPLOYMENT RATE	9.60	9.40	9.10	9.34	-13.65	-19.09
EMPLOYMENT, TOTAL NON-AGRICULTURAL WAGE AND SALARY	1172.90	1177.30	1186.40	1178.87	2.72	1.26
EMPLOYMENT, BITUMINOUS COAL & LIGNITE MINING (SIC 12)	35.10	35.60	35.70	35.47	-0.09	-17.33
EMPLOYMENT, CONTRACT CONSTRUCTION	51.30	50.50	50.00	50.60	0.33	-4.95
EMPLOYMENT, TOTAL MANUFACTURING	244.30	243.40	247.50	245.07	1.02	4.45
EMPLOYMENT, MANUFACTURING, DURABLE	131.30	132.10	133.50	132.30	1.74	10.19
EMPLOYMENT, MANUFACTURING, NON-DURABLE	113.00	111.30	114.00	112.77	0.18	-1.57
EMPLOYMENT, TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES	64.30	64.60	64.70	64.53	2.92	0.05
EMPLOYMENT, WHOLESALE & RETAIL TRADE	269.20	275.80	283.00	276.00	3.60	3.31
EMPLOYMENT, FINANCE, INSURANCE & REAL ESTATE (SIC 60-67)	53.00	53.00	53.30	53.10	-0.69	1.98
EMPLOYMENT, SERVICES (SIC 70-80)	226.30	224.30	222.00	224.20	-0.97	2.48
EMPLOYMENT, CIVILIAN GOVERNMENT	223.70	224.30	224.80	224.27	9.76	-0.28
EMPLOYMENT, STATE & LOCAL GOVERNMENT	182.90	183.30	183.90	183.37	12.22	-1.08
HOURS AND EARNINGS OF PRODUCTION WORKERS IN MANUFACTURING						
AVG WEEKLY HOURS, PROD WORKERS, TOTAL MANUFACTURING	39.70	39.60	39.90	39.73	1.27	1.27
AVG WEEKLY HOURS, PROD WORKERS, MANUFACTURING DURABLES	39.90	40.60	40.70	40.40	2.71	5.21
AVG WEEKLY HOURS, PROD WORKERS, NON-DURABLE MANUFACTURING	39.50	38.30	39.00	38.93	-0.43	-2.99
AVG HOURLY EARN, PROD WORKERS, TOTAL MANUFACTURING	8.91	9.16	9.18	9.08	3.26	7.54
AVG HOURLY EARN, PROD WORKERS, MANUFACTURING DURABLES	9.53	9.71	9.77	9.67	2.87	4.28
AVG HOURLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING	8.11	8.41	8.40	8.31	3.45	9.78
AVG WEEKLY EARN, PROD WORKERS, TOTAL MANUFACTURING	353.73	362.74	366.28	360.92	4.57	8.91
AVG WEEKLY EARN, PROD WORKERS, MANUFACTURING DURABLES	380.25	394.23	397.64	390.71	5.66	9.71
AVG WEEKLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING	320.35	322.10	327.60	323.35	2.99	6.49
MINING (MILLIONS OF TONS, MILLIONS OF TAX DOLLARS)						
BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, EASTERN KY, TOTAL	9.03	8.76	8.04	25.83	-0.81	10.47
BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, WESTERN KY, TOTAL	3.13	3.03	3.77	9.93	12.89	2.30
AVG HOURLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING	14.18	14.57	13.64	14.13	-4.20	-6.51
AVG WEEKLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING	453.76	501.21	486.95	480.64	4.54	-8.77
AVG WEEKLY HOURS, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING	32.00	34.40	35.70	34.03	9.20	-2.39
TAX RECEIPTS, COAL SEVERANCE, CONSOLIDATED, TOTAL	15.51	16.38	16.87	48.76	*	-5.81
HOUSING (MILLIONS OF $, NO. OF PRIVATE RESID. UNITS--NOT SEAS ADJ)						
VALUE OF CONSTRUCTION CONTRACTS, RESIDENTIAL & NON-RES	185.10	144.90	177.10	507.10	-9.53	41.73
HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, 1 UNIT	475.00	461.00	241.00	1177.00	-31.13	8.58
VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, 1 UNIT	22.04	21.81	12.53	56.38	-32.01	23.23
HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, TOTAL	858.00	740.00	449.00	2047.00	-52.69	-4.26
VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, TOTAL	29.80	28.19	17.00	75.00	-48.48	14.82
NET LOANS MADE & ACQUIRED BY KY. SAVINGS & LOAN ASSOCIATIONS	24.87	80.54	47.49	152.90	35.60	312.03
RETAIL SALES (MIL $, 000 CARS)						
TAX RECEIPTS, GENERAL FUND, SALES AND GROSS RECEIPTS	72.28	68.90	73.01	214.19	*	7.85
NEW PASSENGER CAR REGISTRATIONS, TOTAL, NOT SEAS. ADJ.	NA	9.18	7.89	NA	*	NA
SELECTED STATE GOVERNMENT RECEIPTS (MIL $)						
TAX AND NONTAX RECEIPTS, GENERAL FUND, TOTAL	194.56	210.90	217.23	622.69	*	6.74
TAX RECEIPTS, GENERAL FUND, SALES & USE TAXES, TOTAL	63.36	62.68	67.14	193.18	*	11.43
TAX RECEIPTS, GENERAL FUND, INCOME TAX, INDIVIDUAL	70.56	56.95	52.31	179.82	*	9.45
TAX RECEIPTS, GENERAL FUND, INCOME TAX, CORPORATION	8.98	5.50	31.91	46.38	*	20.49
TAX RECEIPTS, STATE ROAD FUND, STATE SHARE	31.68	33.82	27.55	93.04	*	3.92
TAX RECEIPTS, STATE ROAD FUND, MOTOR FUELS TAXES, NORMAL	16.34	14.89	16.29	47.52	*	-1.02
TAX RECEIPTS, STATE ROAD FUND, MOTOR VEHICLE USAGE TAX	10.58	10.43	8.32	29.35	*	24.26

PRIVATE SOURCES FOR THE ABOVE DATA INCLUDE:
F. W. DODGE DIVISION (MCGRAW-HILL INFORMATION SYSTEMS COMPANY), VALUE OF CONSTRUCTION CONTRACTS)
R. L. POLK & COMPANY, NEW CAR REGISTRATIONS (NA FOR OCT. '83)

NOTE: THE DATA ON PERMIT-AUTHORIZED CONSTRUCTION COME FROM THE BUREAU OF THE CENSUS, U.S. DEPARTMENT OF COMMERCE AND REPRESENT THE KENTUCKY PORTION OF THE NATIONAL SURVEY OF 16,000 PERMIT-ISSUING PLACES.

* = QUARTER TO QUARTER COMPARISONS NOT MEANINGFUL DUE TO SEASONAL VARIATION

An Update on Kentucky Employment

In the December 1982 issue of this publication, Professor Don M. Soule analyzed total Kentucky nonagricultural wage and salary employment, Kentucky employment by major industry groups, and employment within the durable and nondurable manufacturing groups. The primary finding of that analysis was that total Kentucky nonagricultural wage and salary employment, as well as employment in most of the major industry groupings, peaked in 1979 (for the period 1970-81), and appeared to be declining further in 1982. Employment in finance (including insurance and real estate) and civilian government seemed then to have peaked in 1980, while annual employment in services appeared to be steadily growing.

Similar trends were again shown in the December 1983 issue with analysis of employment in higher and lower wage industries, Kentucky and the U.S., 1980-83. In Kentucky, only employment in services and trades had grown since 1980, but in the case of trades employment, the increase was only 0.1 percent. Employment growth in services at a rate of 4.9 percent 1980-83, was notable not only when contrasted with developments in all the other industries, but also because the growth rate was faster than that experienced nationally.

Employment data for 1982 and 1983 have recently been revised. With this in mind, data tables with employment by industry have again been prepared, and are shown here. All data have been indexed to the employment level in each industry in 1970. For ease of presentation, Tables 1 and 2 separate the goods-producing and the service-producing industries. Tables 3 and 4 show manufacturing employment disaggregated by durable and nondurable manufacturing industries. By presenting these tables, the previous analyses are extended to the most recent data and the reader can evaluate employment developments in Kentucky's industries through the most recent year. This brief update also complements the analysis of the Kentucky economy,

TABLE 1
KENTUCKY NONAGRICULTURAL EMPLOYMENT
GOODS-PRODUCING INDUSTRIES
INDEX NUMBERS: 1970 = 100

Year	Total Non-agricultural Employment	Total Manufacturing	Durable Manufacturing	Nondurable Manufacturing	Mining	Contract Construction	Total Goods-Producing Industries
1970	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	136.8	117.5	126.2	107.2	194.8	145.4	128.1
1980	133.0	109.2	113.7	103.9	188.6	122.8	117.8
1981	131.5	106.9	110.3	103.0	190.5	111.3	114.7
1982	127.5	96.8	95.3	98.4	188.7	105.7	105.9
1983	126.8	95.2	94.0	96.6	149.0	98.6	100.3

TABLE 2
KENTUCKY NONAGRICULTURAL EMPLOYMENT
SERVICE-PRODUCING INDUSTRIES
INDEX NUMBERS: 1970 = 100

Year	Total Non-agricultural Employment	Transportation, Public Utilities, Communications	Wholesale Trade	Retail Trade	Finance, Insurance, Real Estate	Services	Govern-ment	Total Service Producing
1970	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	136.8	119.0	162.8	145.2	143.5	152.4	133.5	141.8
1980	133.0	116.1	158.7	141.1	147.0	156.6	133.8	141.5
1981	131.5	114.6	160.5	140.3	147.0	160.0	130.0	141.0
1982	127.5	111.3	157.6	141.2	145.1	160.9	131.7	141.2
1983	126.8	106.3	156.0	144.7	148.9	166.8	127.4	141.8

This material was prepared by the editor with the assistance of Elsie M. Youmans; Ms. Youmans manipulated and graphed the data. All data were drawn from the Kentucky Economic Information System. The original source agency for the Kentucky data is the Kentucky Cabinet for Human Resources; the U.S. data come originally from the Bureau of Labor Statistics, U.S. Department of Labor.

TABLE 3
KENTUCKY EMPLOYMENT BY DURABLE MANUFACTURING SUBGROUPS
INDEX NUMBERS: 1970 = 100

Year	Lumber	Furniture	Stone	Primary Metal	Fabricated Metal	Machinery, Excluding Electrical	Electrical Machinery	Motor Vehicle
1970	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	115.2	92.6	141.8	135.7	113.1	152.2	107.8	158.1
1980	101.3	77.5	127.6	130.3	100.1	139.6	96.1	115.6
1981	98.9	68.6	115.5	128.4	91.0	144.4	90.0	121.9
1982	82.8	60.5	106.5	114.1	82.8	123.6	75.6	107.8
1983	89.9	65.1	105.3	111.1	78.1	110.9	76.8	120.3

TABLE 4
KENTUCKY EMPLOYMENT BY NONDURABLE MANUFACTURING SUBGROUPS
INDEX NUMBERS: 1970 = 100

Year	Food	Tobacco	Textiles	Apparel	Paper	Printing	Chemical	Petroleum and Rubber	Leather
1970	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	88.8	88.8	115.5	101.7	159.2	106.6	115.1	170.7	88.0
1980	88.0	79.7	106.3	101.1	154.2	108.3	111.0	160.0	82.8
1981	84.9	81.7	104.5	98.2	154.1	109.3	107.9	170.3	78.7
1982	84.1	72.8	105.0	94.5	148.8	106.7	99.5	161.6	69.0
1983	80.1	69.3	99.6	94.9	153.0	108.5	94.0	168.1	55.3

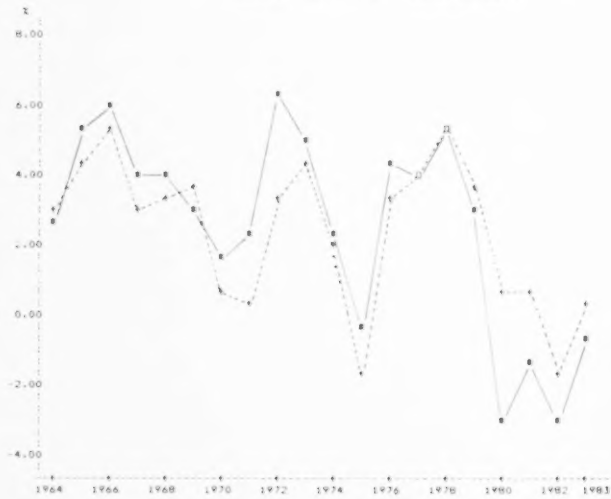
based primarily upon income measures, that is included in the (Kentucky) *Council of Economic Advisors Annual Report—1983*.

To some extent, nonagricultural employment trends in Kentucky follow similar developments nationwide. The change in total nonagricultural employment over the last twenty years in Kentucky and the U.S. is graphed in Figure 1. The employment changes in the goods-producing and the service-producing industries, in both Kentucky and the U.S., are graphed in Figure 2. Table 5 provides information on the distribution of nonagricultural employment in Kentucky and the U.S. in 1963, 1973 and 1983. Total nonagricultural employment in each of these years is also given. For the percent distribution of employment for each Kentucky industry, please refer to the December 1982 issue of this publication.

FIGURE 1

PERCENT CHANGE IN KENTUCKY AND U.S. NONAGRICULTURAL EMPLOYMENT, 1964-83

LEGEND: KENTUCKY K UNITED STATES U



(continued from the preceding page)

FIGURE 2

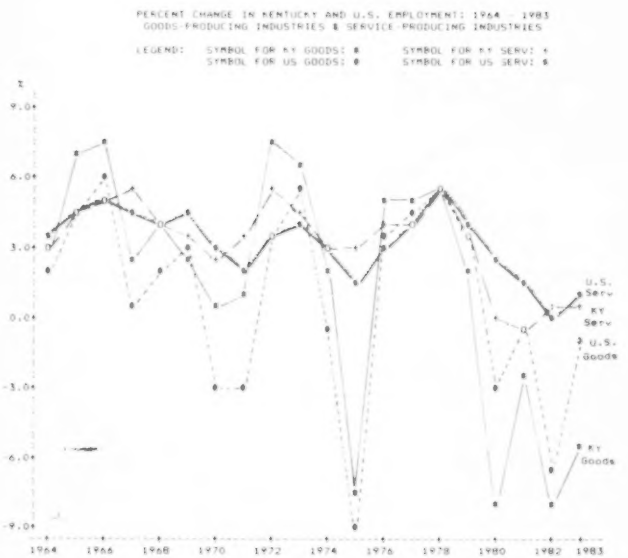


TABLE 5
DISTRIBUTION OF KENTUCKY AND U.S. NONAGRICULTURAL EMPLOYMENT

	1963	1973	1983
	Kentucky		
Goods-Producing	36.5%	36.3%	28.6%
Service-Producing	63.5%	63.7%	71.4%
Total Employment (in thousands)	702.9	1038.5	1153.9
	United States		
Goods-Producing	36.4%	32.4%	26.3%
Service-Producing	63.6%	67.6%	73.7%
Total Employment (in thousands)	56638.0	76777.7	89964.4

(Continued from page 1)

1984 as compared with 3.4 percent in 1983. For 1985 and 1986, the growth rate of real GNP would decline to about 2.7 percent. The national unemployment rate would decline to 7.4 percent in 1984 as compared with 9.6 percent in 1983. Interest rates would generally be slightly higher in both 1984 and 1985 than in 1983. The rise in the Consumer Price Index (CPI) would be about 5 percent for both 1984 and 1985, as compared with 3.2 percent in 1983.

Kentucky's coal production appears to be somewhat greater than one year ago and it is expected that gradual growth will continue in this sector. Improvement can also be expected in Kentucky's agricultural sector. Farm prices are generally higher than last year and with normal weather, a larger output will be available for sale.

Kentucky's seasonally adjusted monthly unemployment rate commenced to decline in June of 1983, earlier than previously reported, giving reason to expect this trend to continue in 1984 and through most of 1985. Revisions in the U.S. and Kentucky unemployment rates, and the trend that they followed from 1981 through 1983, are shown in Figure 1. If the Kentucky employment trend follows that of the nation, gradual improvement could be expected to occur over a broad front—house construction, automobile and related production, and industrial production generally. Growth would also continue through 1985 although at a slower pace.

FIGURE 1

SOURCE : BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR & KENTUCKY CABINET FOR HUMAN RESOURCES. DATA HAVE BEEN RETRIEVED AND PLOTTED WITH PROGRAM DTP OF THE KENTUCKY ECONOMIC INFORMATION SYSTEM (KEIS). KENTUCKY DATA WERE SEASONALLY ADJUSTED BY USE OF PROGRAM X - 11 , AND ARE STORED IN THE KEIS.

(Continued from page 2)

In line with the organizational changes described above, *Kentucky Economy: Review & Perspective* becomes a publication of the new Center for Business and Economic Research beginning with this first number of the eighth volume. "News & Notes" will continue to include news of the KCEA, as well as of the Center, and other notes we believe may be of interest to the readership, including updated information concerning the KEIS. In the body of the publication, we anticipate publishing articles emanating from research undertaken by Center or College faculty and staff, as well as articles analyzing aspects of the Kentucky economy submitted to us for consideration by others, including state government analysts.

• • •

Demonstrations and training in the use of the Kentucky Economic Information System (KEIS) were held recently at the Office for Revenue Estimating and Economic Analysis, Kentucky Revenue Cabinet, and at the Governor's Office for Policy and Management. Staff from the Finance Cabinet also attended. State agencies wishing to host KEIS/Frankfort demonstrations and/or review sessions are encouraged to contact the KEIS Manager, (606) 257-7679.

Roy Sigafus, KEIS senior programmer and systems analyst, has recently released several "execs" that make use of the KEIS on KECNET (i.e., the university-network) more direct for some purposes. One of these, the SELTAB exec, allows the user to produce selected tables from the full set of standardized tables output from program TABLE. A sample table is displayed on page 12 of this issue.

The other new "execs" all relate to the county database of the KEIS, the CBANK. One of these, the CBANK exec, permits the user to retrieve and print data on multiple data items and/or for multiple counties (or other regional group) with a minimum of input. The other set of new CBANK execs are called the BEA execs; they allow the user to produce a table with all income or employment data for a single county (or other regional group) for selected years, from time-series stored in the CBANK and originally estimated by the Bureau of Economic Analysis (BEA).

Persons who are already authorized to access any of the KEIS execs may obtain further information about these commands, online, by typing in "SELTAB info," "CBANK info," or "BEA info," after logging on to CMS. Other interested persons should contact Roy Sigafus, (606) 257-7677, or the KEIS Manager.

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(Continued from page 5)

Even when faced with such large numbers, it is sometimes possible to take for granted the day-to-day impact of infrastructure on our lives. When a major bridge collapses, or a highway caves in due to disrepair, or when a water system is so antiquated that it can barely supply the needs of a city, there is a more immediate appreciation for the adequacy of our nation's infrastructure. In this era of limited resources and competition for public funds, spending for infrastructure often is delayed or reduced. Continuation of this could have significant impact on our future. To quote the report on the National Infrastructure Study, "Hard choices have to be made, today, about meeting our nation's infrastructure needs of the future. There's a bill coming due. We should start to pay it now, or we'll have to pay a lot more later."

Notes

[1]As cited in Pat Choate and Susan Walters, "Public Facilities: Key to Economic Revival" *American Federationist*, August 1981.

[2]Congressional Budget Office, "Public Works Infrastructure: Policy Considerations for the 1980s" (April 1983).

[3]Kentucky Department of Education, "School District Construction Needs" (June 30, 1983).

[4]National Governors' Association and National Association of State Budget Officers, "Governors' Response to Fiscal Austerity" (August 1983).

[5]Kentucky Finance and Administration Cabinet, Office for Policy and Management (June 1983).

[6]National Governors' Association, 1983.

[7]Ibid.

[8]Kentucky Finance and Administration Cabinet, 1983.

[9]Congressional Budget Office, 1983.

[10]General Accounting Office, "Effective Planning and Budgeting Practices Can Help Arrest the Nation's Deteriorating Public Infrastructure" (PAD-83-2, November 18, 1982).

[11]The National Study was undertaken by the Graduate School of Public Affairs, University of Colorado, Denver. In Kentucky, the case study was conducted by the James W. Martin Center for Public Administration, University of Kentucky, working with the Office for Policy and Management in the state Cabinet for Finance and Administration.

[12]University of Kentucky Transportation Research Center, *Allocation of Transportation Costs to User*.

[13]*Hard Choices*, a summary report of the National Infrastructure Study, prepared for the Joint Economic Committee of the U.S. Congress, February 1984.

STANDARDIZED TABLE 201
KENTUCKY QUARTERLY ECONOMIC DATABANK
KENTUCKY PERSONAL INCOME: SUMMARY, BY QUARTERS

SERIES		QU 4,1982	QU 1,1983	QU 2,1983	QU 3,1983	QU 4,1983
1	INCOME, TOTAL KENTUCKY PERSONAL,BY PLACE OF RESIDENCE, SEAS ADJ,ANN RATE	33483.00	33085.00	33701.00	34351.00	34981.00
2	INCOME, REAL KENTUCKY PERSONAL, IN 1972 DOLLARS	16020.57	15747.26	15859.29	15999.53	16187.41
10	INCOME, NONFARM PERSONAL, TOTAL (Y$-YAG$)	32168.00	32372.00	32995.00	33785.00	34518.00
11	INCOME, FARM PERSONAL, TOTAL	1316.00	714.00	706.00	566.00	463.00
5	INCOME, WAGE & SALARY TOTAL, BY PLACE OF WORK	18750.00	18850.00	19183.00	19706.00	20132.00
6	INCOME, OTHER LABOR, BY PLACE OF WORK	2159.00	2183.00	2239.00	2352.00	2444.00
7	INCOME, PROPRIETORS, BY PLACE OF WORK (RESIDENCE)	2515.00	2067.00	2167.00	2109.00	2049.00
8	INCOME, PROPRIETORS, FARM	1167.00	564.00	556.00	414.00	310.00
9	INCOME, PROPRIETORS, NONFARM	1349.00	1503.00	1611.00	1695.00	1740.00
12	EARNINGS, TOTAL, NONFARM, TOTAL	22109.00	22386.00	22884.00	23602.00	24162.00
13	EARNINGS, TOTAL, NONFARM, PRIVATE	18028.00	18247.00	18639.00	19376.00	19901.00
14	EARNINGS, TOTAL, AG. SERV., FORESTRY, FISHERIES, & OTHER	90.00	98.00	98.00	107.00	107.00
15	EARNINGS, TOTAL, MINING (SIC 10-14)	1673.00	1629.00	1641.00	1727.00	1764.00
16	EARNINGS, TOTAL, CONTRACT CONSTRUCTION (SIC 15-17)	1182.00	1183.00	1132.00	1158.00	1186.00
17	EARNINGS, TOTAL, MANUFACTURING, TOTAL	5411.00	5564.00	5742.00	6060.00	6328.00
18	EARNINGS, TOTAL, MANUFACTURING, NONDURABLE GOODS	2396.00	2424.00	2496.00	2576.00	2621.00
19	EARNINGS, TOTAL, MANUFACTURING, DURABLE GOODS	3014.00	3140.00	3247.00	3484.00	3707.00
20	EARNINGS, TOTAL, TRANS., COMM., & PUB UTIL (SIC40-49)	1788.00	1824.00	1825.00	1855.00	1887.00
21	EARNINGS, TOTAL, WHOLESALE & RETAIL TRADE (SIC 50-59)	3439.00	3460.00	3527.00	3640.00	3733.00
22	EARNINGS, TOTAL, WHOLESALE TRADE (SIC 50-51)	1256.00	1257.00	1287.00	1312.00	1353.00
23	EARNINGS, TOTAL, RETAIL TRADE (SIC 52-57)	2183.00	2203.00	2240.00	2328.00	2380.00
24	EARNINGS, TOTAL, FIN., INS., & REAL ESTATE (SIC 60-67)	997.00	997.00	1043.00	1043.00	1056.00
25	EARNINGS, TOTAL, SERVICES (SIC 70-89)	3449.00	3490.00	3631.00	3787.00	3840.00
26	EARNINGS, TOTAL, GOVERNMENT, TOTAL	4081.00	4140.00	4245.00	4226.00	4262.00
27	EARNINGS, TOTAL, GOVERNMENT, FEDERAL CIVILIAN	870.00	879.00	898.00	902.00	892.00
28	EARNINGS, TOTAL, GOVERNMENT, FEDERAL MILITARY	704.00	701.00	705.00	716.00	712.00
29	EARNINGS, TOTAL, GOVERNMENT, STATE & LOCAL	2507.00	2560.00	2642.00	2608.00	2657.00
30	EARNINGS, TOTAL, GOVERNMENT, TOTAL CIVILIAN	3377.00	3439.00	3540.00	3510.00	3549.00
31	INCOME, TOTAL EARNINGS BY PLACE OF WORK (YAG$ + YLENAG$)	23424.00	23100.00	23590.00	24168.00	24625.00
32	PERSONAL CONTRIBUTIONS TO SOCIAL INSURANCE, BY PLACE OF WORK	1354.00	1381.00	1393.00	1434.00	1459.00
33	INCOME, NET EARNINGS BY PLACE OF WORK	22070.00	21719.00	22197.00	22734.00	23166.00
34	ADJUSTMENT FOR RESIDENCE, KENTUCKY PERSONAL INCOME	163.00	169.00	188.00	208.00	228.00
35	INCOME, NET EARNINGS, BY PLACE OF RESIDENCE	22233.00	21887.00	22385.00	22942.00	23394.00
36	INCOME, PROPERTY: DIVIDENDS, INTEREST, RENTS & ROYALTIES, TOTAL	5332.00	5285.00	5294.00	5466.00	5610.00
37	INCOME, TRANSFER PAYMENTS, TOTAL	5914.00	5913.00	6023.00	5949.00	5978.00
38	INCOME, TRANSFER PAYMENTS, STATE U.I. BENEFITS	502.00	461.00	484.00	350.00	283.00

UNITS: MILLIONS OF CURRENT DOLLARS
SOURCE: U.S. BUREAU OF ECONOMIC ANALYSIS
NOTE: ALL SERIES SEASONALLY ADJUSTED AT ANNUAL RATE.

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